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NOTICE OF ALLOWANCE AND FEE(S) DUE

66547

7590

02/18/2010

THE FARRELL LAW FIRM, LLP
290 Broadhollow Road
Suite 210E
Melville, NY 11747

EXAMINER

ABRAHAM, ESAW T

ART UNIT

PAPER NUMBER

2112

DATE MAILED: 02/18/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/585,051

05/30/2007

Kun-Min Yeo

1403-15 PCT US

7981

TITLE OF INVENTION: METHOD FOR CREATING FEEDBACK MESSAGE FOR ARQ IN MOBILE COMMUNICATION SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/18/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

66547 7590 02/18/2010
THE FARRELL LAW FIRM, LLP
290 Broadhollow Road
Suite 210E
Melville, NY 11747

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/585,051 05/30/2007 Kun-Min Yeo 1403-15 PCT US 7981

TITLE OF INVENTION: METHOD FOR CREATING FEEDBACK MESSAGE FOR ARQ IN MOBILE COMMUNICATION SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/18/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
ABRAHAM, ESAW T	2112	714-749000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2
 3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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ABRAHAM, ISAAC T

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DATE MAILED: 02/18/2010

THE FARRELL LAW FIRM, LLP
290 Broadhollow Road
Suite 210E
Melville, NY 11747

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 460 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 460 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability**Application No.**

10/585,051

Applicant(s)

YEO ET AL.

Examiner

ESAW T. ABRAHAM

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the AMDT filed on 02/02/10.
2. ☒ The allowed claim(s) is/are 16, 19, 20, 23 and 25 (renumbered as 1-5).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date ____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

DETAILED ACTION

Response to Amendment

- The reply filed February 02, 2010 has been received and entered.
- Claims 1-15, 17-18, 21-22, 24, and 26-32 have been canceled. Therefore, claims 16, 19, 20, 23 and 25 are pending in the application.
- Newly amended Abstract is accepted.
- Specification objections are withdrawn in view of applicant's amendments.
- The objection to the drawings is withdrawn in view of the submitted replacement sheet.
- The rejection of claims 13-25 under 35 U.S.C. § 101 is withdrawn in view of applicant's amendments.
- The rejection of claims 13-25 under 35 U.S.C. § 112, second paragraph, is withdrawn in view of applicant's amendments.

Allowable Subject Matter

1. Claims **16, 19, 20, 23 and 25** are allowed. The following is an Examiner's statement of reasons for allowance:

Independent **claim 16** of the present application teaches, for example, A method, performed in a wireless communication system., for sending a feedback message for an automatic repeat request, comprising recording an ACK type in a first field, wherein the ACK type indicates one of a selective ACK type, a cumulative ACK type, a cumulative-selective ACK type, and a cumulative-bulk ACK type; determining a last block sequence number of successive blocks that

are successfully received by a first wireless communication device from a second wireless communication device, to record the determined last block sequence number in a second field; recording, in a third field, types of groups of successive blocks that are successfully or unsuccessfully received after the last block sequence number if the ACK type is the cumulative-bulk ACK type; determining lengths of the groups to record the determined lengths of the groups in a fourth field if the ACK type is the cumulative-bulk ACK type; and sending, by the first wireless communication device, a feedback message including fields from the first field to the fourth field.

Particularly, the prior art of record taken singly or in combination fail to teach, anticipate, suggest, or render obvious the foregoing limitations *“recording an ACK type in a first field, wherein the ACK type indicates one of a selective ACK type, a cumulative ACK type, a cumulative-selective ACK type, and a cumulative-bulk ACK type; determining a last block sequence number of successive blocks that are successfully received by a first wireless communication device from a second wireless communication device, to record the determined last block sequence number in a second field; recording, in a third field, types of groups of successive blocks that are successfully or unsuccessfully received after the last block sequence number if the ACK type is the cumulative-bulk ACK type; determining lengths of the groups to record the determined lengths of the groups in a fourth field if the ACK type is the cumulative-bulk ACK type; and sending, by the first wireless communication device, a feedback message including fields from the first field to the fourth field”*. Consequently, claim 16 is allowed over the prior arts.

Independent **claim 19** of the present application teaches, for example, A method, performed in a -wireless communication system, for sending a feedback message for an automatic repeat request, comprising recording an ACK type in a first field, wherein the ACK type indicates one of a selective ACK type, a cumulative ACK type, a cumulative-selective ACK type, and a cumulative-bulk ACK type; determining a last block sequence number of successive blocks that are successfully received by a first wireless communication device from a second wireless communication device, to record the determined last block sequence number in a second field; determining a number of ACK maps to record the determined number of the ACK maps in a third field; if the ACK type is the cumulative-bulk ACK type, recording, in a fourth field of each of the ACK maps, types of the groups of successive blocks that are successfully or unsuccessfully received after the last block sequence number, wherein the types of the groups indicate type whether each of the groups is successfully received, and determining lengths of the groups for each of the ACK maps, to record the determined lengths of the groups in a fifth field of each of the ACK maps; and sending, by the first wireless communication device, a feedback message including fields from the first field to the fifth field.

Particularly, the prior art of record taken singly or in combination fail to teach, anticipate, suggest, or render obvious the foregoing limitations *“recording an ACK type in a first field, wherein the ACK type indicates one of a selective ACK type, a cumulative ACK type, a cumulative-selective ACK type, and a cumulative-bulk ACK type; determining a last block sequence number of successive blocks that are successfully received by a first wireless communication device from a second wireless communication device, to record the determined last block sequence number in a second field; determining a number of ACK maps to record the*

determined number of the ACK maps in a third field; if the ACK type is the cumulative-bulk ACK type, recording, in a fourth field of each of the ACK maps, types of the groups of successive blocks that are successfully or unsuccessfully received after the last block sequence number, wherein the types of the groups indicate type whether each of the groups is successfully received, and determining lengths of the groups for each of the ACK maps, to record the determined lengths of the groups in a fifth field of each of the ACK maps; and sending, by the first wireless communication device, a feedback message including fields from the first field to the fifth field".

Consequently, claim 19 is allowed over the prior arts.

Independent **claim 20** of the present application teaches, for example, A method performed in a wireless communication system, for sending a feedback message for an automatic repeat request, comprising recording an ACK type in a first field; determining a last block sequence number of successive blocks that are successfully received by a first wireless communication device from a second wireless communication device, to record the determined last block sequence number in a second field; determining a number of groups of successive blocks that are successfully or unsuccessfully received after the last block sequence number, to record the determined number of groups in a third field; recording types of the .groups in a fourth field, wherein the types of the groups indicate whether each of the groups is successfully received; determining; lengths of the groups to record the determined lengths of the groups in a fifth field; and sending, by the first wireless communication device, a feedback message including fields from the first field to the fifth field.

Particularly, the prior art of record taken singly or in combination fail to teach, anticipate, suggest, or render obvious the foregoing limitations "recording an ACK type in a

first field; determining a last block sequence number of successive blocks that are successfully received by a first wireless communication device from a second wireless communication device, to record the determined last block sequence number in a second field; determining a number of groups of successive blocks that are successfully or unsuccessfully received after the last block sequence number, to record the determined number of groups in a third field; recording types of the groups in a fourth field, wherein the types of the groups indicate whether each of the groups is successfully received; determining lengths of the groups to record the determined lengths of the groups in a fifth field; and sending, by the first wireless communication device, a feedback message including fields from the first field to the fifth field". Consequently, claim 20 is allowed over the prior arts.

Independent **claim 25** of the present application teaches, for example, a method, performed in a wireless communication system, for sending a feedback message for an automatic repeat request, comprising: recording an ACK type in a first field, wherein the ACK type indicates one of a selective ACK type, a cumulative ACK type, a cumulative-selective ACK type, and a cumulative-bulk ACK type; determining a last block sequence number of successive blocks that are successfully received by a first wireless communication device from a second wireless communication device, to record the last block sequence number in a second field; determining a number of ACK maps to record the determined number of the ACK maps in a third field; if the ACK type is the cumulative-bulk ACK type, determining a number of groups of successive blocks that are successfully or unsuccessfully received after the last block sequence number, to record information on the determined number of groups for each of the ACK maps in a fourth field of each of the ACK maps, recording types of the groups for

each of the ACK maps in a fifth field of each of the ACK maps, wherein the types of the groups indicates type whether each of the groups is successfully received, and determining lengths of the groups for each of the ACK maps, to record the determining lengths of the groups in a sixth field of each of the ACK maps; and sending, by the first wireless communication device, a feedback message including fields from the first field to the sixth field.

Particularly, the prior art of record taken singly or in combination fail to teach, anticipate, suggest, or render obvious the foregoing limitations *“recording an ACK type in a first field, wherein the ACK type indicates one of a selective ACK type, a cumulative ACK type, a cumulative-selective ACK type, and a cumulative-bulk ACK type; determining a last block sequence number of successive blocks that are successfully received by a first wireless communication device from a second wireless communication device, to record the last block sequence number in a second field; determining a number of ACK maps to record the determined number of the ACK maps in a third field; if the ACK type is the cumulative-bulk ACK type, determining a number of groups of successive blocks that are successfully or unsuccessfully received after the last block sequence number, to record information on the determined number of groups for each of the ACK maps in a fourth field of each of the ACK maps, recording types of the groups for each of the ACK maps in a fifth field of each of the ACK maps, wherein the types of the groups indicates type whether each of the groups is successfully received, and determining lengths of the groups for each of the ACK maps, to record the determining lengths of the groups in a sixth field of each of the ACK maps; and sending, by the first wireless communication device, a feedback message including fields from the first field to the sixth field”*. Consequently, claim 23 is allowed over the prior arts.

Dependent claim 23 depends from allowable independent claim 20 and inherently includes limitations therein and therefore is allowed as well.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Esaw T. Abraham whose telephone number is (571) 272-3812. The examiner can normally be reached on M-F 8am-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Esaw T Abraham/
Primary Examiner, Art Unit 2112
02/12/10